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## China, Peoples Republic of

### FAIRS Subject Report

### China's Crop Planting Seed Standard Update

### 2007

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**Report Highlights:**

On November 30, 2007, China notified the World Trade Organization (WTO) of four National Standards that set quality requirements for legume, cereal, fiber crop, and oilseed seeds. All interested parties are encouraged to make comments. This report provides an UNOFFICIAL TRANSLATION of the standards.

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## Executive Summary

On November 30, 2007, China notified the WTO of four National Standards that set quality requirements for legume, cereal, fiber crop, and oilseed seeds. The main aim is to raise the quality of planting seeds. These standards will take effect on June 30, 2008 and have a comment period that closes January 31, 2008. This report contains UNOFFICIAL translations of the following standards: National Standard for Quality Grading of Legume Seeds (G/TBT/N/CHN315); National Standard for Seed of Food Crops/Part One: Cereals (G/TBT/N/CHN316); National Standard for Seed of Economic Crops/Part One: Fiber Species (G/TBT/N/CHN317); National Standards for seed of Economic Crops/Part Two: Oil Species (G/TBT/N/CHN318);

In marketing year 07/08, China's seed imports from the United States are forecast to increase. Total exports of seeds were \$50.6 million in MY06/07, up 41 percent from the previous year due to increased vegetable, grass, and sunflower seed exports. The trade impact of these new standards on U.S. seed exports to China is unclear. All interested parties are encouraged to make comments.

BEGIN TRANSLATION

### Quality Grading of Legume Seeds

(Version Submitted for Approval)

ICS National Standard of the People's Republic of China

GB 6141—x x x x

Issued on \_\_ (date) \_\_ ( month) \_\_\_\_ ( year) Effective on \_\_ (date) \_\_ ( month) \_\_\_\_ ( year)

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

IGB 6141—x x x x

### Preface

Clause 4.3, Chapter 5 and Clause 6.2 of the present Standard are compulsory, while the rest of the present Standard is recommended.

The present Standard is a substitute for GB6141-85, "Quality Grading of Major Legume Forage Seeds".

The major changes in the present Standard as compared with GB6141-85 are as follows:

- Name of the Standard is changed;
- One citation is added (refer to Clause 2);
- A glossary and definitions are added (refer to Clause 3);
- The principle of grading is added (refer to Clause 4.1);
- The examination methods of grading indices are modified and increased (Annex of 1985 version or Clause 4.2 of the present version);
- Quality grading of 32 legume seed are added (Clause 4.3);
- The grading indices for 18 different legume seeds are modified (Clause 2 of 1985 Version or Clause 4.3 of the present Standard);
- The formal names of all the legume seeds and the Chinese names of some legume seeds are standardized (Clause 2 of 1985 Version or Clause 4.3 of this version);
- The evaluation methodology of quality grading is added (Clause 5);
- Requirements are added (Clause 6);
- The Annex A of 1985 Version to the Standard is deleted.

This Standard is prepared by the Ministry of Agriculture of People's Republic of China.

Institutions participated in drafting of the present Standard: the Forage and Turf Seed Testing Center of the Ministry of Agriculture (Huhehot) and the Forage Seed Quality Supervision, Inspection and Testing Center of the Ministry of Agriculture (Urumchi).

Draftsman: LI Shujun, Batourjoan-Japar, ZHANG Deying, ZHANG Bulian, LI Cunfu, HE Jian, ZHANG Jumei, Ainnee Kurban, YU Ge, LI Hong and Dali

GB 6141—××××  
Quality Grading of Legume Seeds

### 1 Scope

The present Standard stipulates the indices and the evaluation methods used for quality grading of legume seeds.

This Standard applies to the quality grading of legume seeds for production, business operations and use. It could be also used as a reference for similar plant species of the same sibling.

### 2 Standardized Citations

The clauses of the following documents will become the clauses of the present Standard by citation. Where the citation annotated with a date, all the modification made (excluding corrigendum) or any revised version after such citation will not apply to the present Standard. However all parties whose agreement is made based on the present Standard are encouraged to study whether or not to use the latest versions of those citations. Where there is no any date annotated with the citation, the latest versions of those citations shall apply to the present Standard.

GB/T2930.1 Sampling, the National Rules on Forage Seed Testing  
GB/T2930.2 Crop Purity Analysis, the National Rules on Forage Seed Testing.  
GB/T2930.3 Measurement of other plant seeds, The National Rules on Forage Seed Testing.  
GB/T2930.4 Germination Test, the National Rules on Forage Seed Testing.  
GB/T2930.8 Measurement of Moisture, the National Rules on Forage Seed Testing.  
International Rules for Seed Testing, International Seed Testing Association (ISTA)

### 3 Term and Definition

The following term and definition are used in the present Standard:

Seed utilization value

The seed utilization value, also called seed utilization rate, shall mean the percentage of the seeds that can be utilized to germinate among all the seeds. The calculating formula is as follows:

seed utilization value (%) = crop purity× germination rate×100

### 4 Quality Grading

#### 4.1 The Principle of Quality Grading

Quality grading of the seeds shall be carried out based on the purity, the germination rate, the number of other plant seeds, and the moisture of the seeds. The germination rate may include hard seeds. In case the crop purity and the germination rate are not in the same grade level, the seed utilization value shall substitute for the crop purity and the germination rate.

#### 4.2 Testing Method

The testing of the crop purity, the germination rate, the number of other plant seeds, and the moisture of the seeds shall be carried out in accordance with the method and procedures

set forth in GB/T2930.1? GB/T2930.2? GB/T2930.3? GB/T2930.4? GB/T2930.8 and the International Rules for Seed Testing.

#### 4.3 Quality Grading

The legume forage seeds are graded into Grade I, Grade II and Grade III as Table 1 shows.

**Table 1 Quality Grading of Legume Forage Seeds**

Series	Scientific Name	Grade	Purity % =	Germination Rate % =	Seed Utilization Value % =	No. of other plant seeds (no. /kg) =	Moisture % =
1	Astragalus adsurgens Pall.	I	98.0	90	88.2	1000	12.0
		II	95.0	80	76.0	3000	
		III	90.0	70	63.0	5000	
2	Astragalus melilotoides Pall.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	1000	
		III	90.0	80	72.0	2000	
3	Astragalus sinicus L.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	1000	
		III	90.0	80	72.0	2000	
4	Arachis pintoi	I	98.0	90	88.2	250	14.0
		II	95.0	80	76.0	500	
		III	92.0	70	64.4	1000	
5	Amorpha fruticosa L.	I	98.0	80	78.4	500	13.0
		II	95.0	70	66.5	1000	
		III	90.0	60	54.0	2000	
6	Cicer arietinum L.	I	98.0	90	88.2	100	13.0
		II	95.0	85	80.8	200	
		III	92.0	80	73.6	400	
7	Caragana intermedia Kuang et H.C.Fu	I	98.0	80	78.4	200	13.0
		II	95.0	70	66.5	400	
		III	92.0	60	55.2	600	
8	Caragana korshinskii Kom.	I	98.0	85	83.3	200	13.0
		II	95.0	75	71.2	400	
		III	92.0	65	59.8	600	
9	Caragana microphylla Lam.	I	98.0	80	78.4	200	13.0
		II	95.0	70	66.5	400	
		III	92.0	60	55.2	600	
10	Coronilla varia L.	I	98.0	90	88.2	500	12.0
		II	95.0	80	76.0	1000	
		III	90.0	70	63.0	2000	
11	Desmodium intortum Urd.	I	98.0	90	88.2	500	14.0
		II	95.0	85	80.8	1000	
		III	90.0	75	67.5	2000	

**Table 1 Quality Grading of Legume Forage Seeds (continued)**

Series	Scientific Name	Grade	Purity % =	Germination Rate % =	Seed Utilization Value % =	No. of other plant seeds (no. /kg) =	Moisture % =
12	Desmodium uncinatum DC.	I	98.0	90	88.2	500	14.0
		II	95.0	85	80.8	1000	
		III	90.0	75	67.5	2000	
13	Glycine max(L.)merr.	I	98.0	95	93.1	50	13.0
		II	95.0	90	85.5	100	
		III	92.0	85	78.2	200	
14	Glycyrrhiza uralensis Fisch.	I	98.0	90	88.2	200	12.0
		II	95.0	80	76.0	400	
		III	92.0	70	64.4	600	
15	Hedysarum fruticosum Pall.	I	98.0	80	78.4	200	13.0
		II	95.0	70	66.5	400	
		III	92.0	60	55.2	600	
16	Hedysarum laeve Maxim.	I	98.0	70	68.6	200	13.0
		II	95.0	65	61.8	400	
		III	92.0	60	55.2	600	
17	Hedysarum mongolicum Turcz.	I	98.0	70	68.6	200	13.0
		II	95.0	65	61.8	400	
		III	92.0	60	55.2	600	
18	Hedysarum scoparium Fisch. et Mey.	I	98.0	80	78.4	200	13.0
		II	95.0	70	66.5	400	
		III	92.0	60	55.2	600	
19	Indigofera amblyantha Craib	I	96.0	90	86.4	500	13.0
		II	93.0	80	74.4	1000	
		III	90.0	70	63.0	2000	
20	Indigofera pseudotinctoria Mats	I	96.0	90	86.4	500	13.0
		II	93.0	80	74.4	1000	
		III	90.0	70	63.0	2000	
21	Lathyrus sativus L.	I	98.0	95	93.1	50	13.0
		II	95.0	90	85.5	100	
		III	90.0	85	76.5	200	
22	Lespedeza bicolor Turez.	I	98.0	85	83.3	500	13.0
		II	95.0	80	76.0	2000	
		III	90.0	70	63.0	3000	
23	Lespedeza davurica (Laxm)Schindl.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	2000	
		III	90.0	80	72.0	4000	
24	Lotus corniculatus L.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	1000	
		III	90.0	80	72.0	2000	
25	Leucaena leucocephala (lam.) de Wit	I	98.0	85	83.3	50	14.0
		II	95.0	80	76.0	100	
		III	92.0	70	64.4	200	
26	Lotononis bainesii Baker	I	98.0	95	93.1	50	14.0
		II	95.0	85	80.8	100	
		III	90.0	75	67.5	200	
27	Macroptilium atropurpureum (DC.)Urb	I	98.0	90	88.2	200	12.0
		II	95.0	80	76.0	500	
		III	90.0	70	63.0	1000	

**Table 1 Quality Grading of Legume Forage Seeds (continued)**

Series	Scientific Name	Grade	Purity % =	Germination Rate % =	Seed Utilization Value % =	No. of other plant seeds (no. /kg) =	Moisture % =
28	Medicago sativa L.	I	98.0	90	88.2	1000	12.0
		II	95.0	85	80.8	3000	
		III	90.0	80	72.0	5000	
29	Medicago polymorpha L.	I	98.0	90	88.2	1000	12.0
		II	95.0	85	80.8	3000	
		III	90.0	80	72.0	5000	
30	Medicago varia Martin..	I	98.0	90	88.2	1000	12.0
		II	95.0	85	80.8	3000	
		III	90.0	80	72.0	5000	
31	Melilotoides ruthenica (L.)Sojak	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	1000	
		III	90.0	80	72.0	2000	
32	Melilotus albus Desr.	I	98.0	95	93.1	1000	12.0
		II	95.0	90	85.5	3000	
		III	90.0	80	72.0	5000	
33	Melilotus officinalis Lam.	I	98.0	95	93.1	1000	12.0
		II	95.0	90	85.5	3000	
		III	90.0	80	72.0	5000	
34	Macrotyloma axillaries (E.Meyer) Verde.	I	98.0	85	83.3	250	14.0
		II	95.0	80	76.0	500	
		III	90.0	70	63.0	1000	
35	Onobrychis viciifolia Scop.	I	98.0	90	88.2	50	13.0
		II	95.0	85	80.8	100	
		III	92.0	75	69.0	200	
36	Pisum sativum L.	I	98.0	95	93.1	50	13.0
		II	95.0	90	85.5	100	
		III	90.0	85	76.5	200	
37	Pueraria lobata (Willd.)Ohwi	I	98.0	90	88.2	250	14.0
		II	95.0	85	80.8	500	
		III	90.0	75	67.5	1000	
38	Stylosanthes guianensis (Aubl)Sw.	I	98.0	90	88.2	500	14.0
		II	95.0	80	76.0	1000	
		III	90.0	70	63.0	2000	
39	Stylosanthes Hamata (L.) Taub.	I	98.0	90	88.2	500	14.0
		II	95.0	80	76.0	1000	
		III	90.0	70	63.0	2000	
40	Stylosanthes scabra Vog.	I	98.0	90	88.2	500	14.0
		II	95.0	80	76.0	1000	
		III	90.0	70	63.0	2000	
41	Trifolium pratense L.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	2000	
		III	90.0	80	72.0	4000	
42	Trifolium repens L.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	2000	
		III	90.0	80	72.0	4000	
43	Trifolium fragiferum L.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	2000	
		III	90.0	80	72.0	4000	

**Table 1 Quality Grading of Legume Forage Seeds (continued)**

Seri es	Scientific Name	Grade	Purity % =	Germinatio n Rate % =	Seed Utilization Value % =	No. of other plant seeds (no. /kg) =	Moisture % =
44	Trifolium hybridum L.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	2000	
		III	90.0	80	72.0	4000	
45	Trifolium incarnatum L.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	2000	
		III	90.0	80	72.0	4000	
46	Trigonella foenumgraec um L.	I	98.0	90	88.2	500	12.0
		II	95.0	85	80.8	1000	
		III	90.0	80	72.0	2000	
47	Vicia amoena Fisch.	I	98.0	95	93.1	50	12.0
		II	95.0	90	85.5	100	
		III	92.0	85	78.2	200	
48	Vicia sativa L.	I	98.0	95	93.1	50	13.0
		II	95.0	90	85.5	100	
		III	92.0	85	78.2	200	
49	Vicia villosa Roth	I	98.0	95	93.1	50	13.0
		II	95.0	90	85.5	100	
		III	92.0	85	78.2	200	
50	Vicia villosa Roth var. glabrescens	I	98.0	95	93.1	50	13.0
		II	95.0	90	85.5	100	
		III	92.0	85	78.2	200	
51	Vigna unguiculata (L.)Walp	I	98.0	95	93.1	50	14.0
		II	95.0	85	80.8	100	
		III	92.0	75	69.0	200	

## 5 The Evaluation Method of Quality Grading

### 5.1 Grading of a Single Index

In accordance with Table 1 the Grading of a single index as the crop purity, the germination rate, the number of other plant seed, or the moisture of the seed can be determined. The index lower than Grade III shall be graded as substandard.

### 5.2 Grading by Combination of Four Indices

5.2.1 Where all of the four indices of the seed fall on the same quality grade level as shown in Table 1, the quality grade of the seed can be determined directly.

5.2.2 Where one of the four indices is lower than Grade III, the quality of the seed shall be evaluated as substandard.

5.3.3 Where all of the four indices fall at Grade III or above, and the crop purity and the germination rate are not at the same grade level, the seed utilization value shall be calculated first, then substitute it for the crop purity and for the germination rate. Where the seed utilization value and the number of other plant seeds fall on the same grade level, the quality grade of the seed shall be determined in accordance with the grade they fall; where they are not on the same grade level, the quality grade of the seed shall be determined in accordance with the grade that the lower index falls on.

## 6 Requirements

6.1 While quality grading is being carried out, the percentage of hard seeds in the germination rate shall be indicated.

6.2 Seed shall not include any plant seeds of quarantine concern.

**Seed of Food Crops Part 1: Cereals**

( Version Submitted for Examination and Approval)

ICS The National Standard of the People's Republic of China

GB 4404.1—200×

Substitute for GB 4404.1-1996

Issued on \_\_ (date) \_\_ ( month) \_\_\_\_ ( year) Effective on \_\_ (date) \_\_ ( month) \_\_\_\_ ( year)

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, and the Standardization Administration of the People's Republic of China

**Preface**

GB 4404 All of the technical component of Seed of Food Crops is mandatory.

GB 4404 Seed of Food Crops includes the following three parts:

- Part 1 Cereals;
- Part 2 Pulses (soybeans); and
- Part 3 Potatoes.

This is Part 1 of GB 4404, which is formulated after modifications made on GB 4404.1—1996 in accordance with the related stipulations of the Seed Law of the People's Republic of China and the development of the seed industry. It substitutes for GB 4404.1—1996.

The major changes are as follows compared with GB 4404.1—1996:

- quality grading of hybrid seed is made based on purity has been cancelled;
- certain quality indices have been modified;
- rules for testing have been amended.

The present part was prepared by the Ministry of Agriculture of the People's Republic of China (MOA).

The present part falls within the scope of the National Technical Committee of Standardization for Crop Seed.

The Institutions participated in drafting the present part: The National Agro-Technical Extension and Service Center, Sichuan Provincial Seed Station, Liaoning Provincial Seed Administration Bureau, Shanxi Provincial Seed Station, Jiangsu Provincial Seed Station, Shandong Provincial Seed Station, and Jilin Provincial Seed Station etc.

The chief drafters of the present part: XIN Jingshu, BAI Changqing, ZHAO Jianzong, WU Minqian, LI Hongjian, SU Juping, LI Wenxiang, WANG Xiurong, BO Liansheng, NIE Lianbing, BAN Xiuli, ZHAN Genyin, HU Chang, SUN Xirui, ZHU Zhihua, JIN Shiqiao, FU Youlan.

A list of the previous versions of the Standard to be replaced by the present part is given as follows:

- GB4404-84, GB4405-84; and
- GB4404.1-1996.

GB 4404.1— 200X  
Seed of Food Crops  
Part 1 Cereals

**1 Scope**

The present part of GB 4404 stipulates the quality requirements, the testing methods and the rules for testing in respect to the seed of crops as paddy rice (*Oryza sativa*), corn (*Zea mays*), wheat (*Triticum aestivum*), barley (*Hordeum vulgare*), sorghum (*Sorghum bicolor*), foxtail millet (*Setaria italica*) and broom corn millet (*Panicum miliaceum*).

The present part applies to the cereal seeds of above-mentioned crops produced and sold within the territory of the People's Republic of China, including coated seeds and uncoated seeds.

## **2 Standardized Citations**

The clauses of the following document will become the clauses of the present Part by citation in GB4404. Where the citation annotated with a date, all the modification made (excluding corrigendum) or any revised version after such citation will not apply to the present Part. However all parties whose agreement is made based on the present Part are encouraged to study whether or not to use the latest version of those citation. Where there is no any date annotated with the citation, the latest version of the citation shall apply to the present Part. GB/T 3543( all components) The Rules for Testing of Crop Seed.

## **3 Terms and Definitions**

The following terms and definitions shall apply to the present Part of GB4404.

### **3.1 Basic seed**

Basic seed refers to the seed of the first, the second and the third generations propagated by using breeder's seed and it is verified upon examination that the quality requirements stipulated are satisfied.

### **3.2 Qualified seed**

Qualified seed refers to the seed of the first, the second and the third generations or hybrid seed propagated by using basic seed and it is verified upon examination that the quality requirements stipulated are satisfied.

### **3.3 Single cross**

Single cross refers to a cross between two inbred lines.

### **3.4 Double cross**

Double cross refers to a cross between two F1 hybrids.

### **3.5 Three-way cross**

Three-way cross refers to a cross between one inbred line and one F1 hybrid.

## **4 Quality Requirements**

### **4.1 General provisions**

Quality requirements are comprised of quality index and quality value labeling. The quality indices include the genetic purity, the crop purity (cleanliness), the rate of germination, and the moisture; the labeled quality value shall be true and comply with the quality requirements set forth by the present Part (see 4.2).

### **4.2 Quality Criteria**

#### **4.2.1 Paddy**

**The quality of paddy rice seed shall meet the requirements as shown in Table 1.**

Table 1

per cent (%)

Name of crop	Category of seed		Genetic purity not lower than	Crop purity not lower than	Germination Not lower than	Moisture <sup>a</sup> Not higher than
Paddy	Conventional seed	Basic seed	99.9	98.0	85	13.0(indica rice)
		Qualified seed	99.0			14.5(japonica rice)
	Male sterile line, restorer line, and maintenance line	Basic seed	99.9	98.0	80	13.0
		Qualified seed	99.5			
	Hybrid seed <sup>b</sup>	Qualified seed	96.0	98.0	80	13.0(indica rice)
						14.5(japonica rice)
<p>a. The moisture of the seed is allowed to be higher than 13%, but not exceed 16% provided it is produced in the area either on the north of the great wall or in high elevation and cold places. The moisture shall not be higher than 13% provided it is sold to the area south to the great wall (excluding in high elevation and cold area)</p> <p>b. The quality indices of paddy apply to the hybrid paddy rice seeds by three-line or two- line hybrid paddy seeds.</p>						

## 4.2.2 Corn

**The quality of corn seed shall meet the requirements as shown in Table 2.**

Table 2

per cent (%)

Name of crop	Category of seed		Genetic purity not lower than	Crop purity not lower than	Germination Not lower than	Moisture <sup>a</sup> Not higher than
Corn	Conventional seed	Basic seed	99.9	99.0	85	13.0
		Qualified seed	97.0			
	Inbred line	Basic seed	99.9	99.0	80	13.0
		Qualified seed	99.0			
	Single cross	Qualified seed	96.0	99.0	85	13.0
	Double cross	Qualified seed	95.0			
Three-way cross	Qualified seed	95.0				
<p>a. The moisture of the seed is allowed to be higher than 13%, but not exceed 16% provided it is produced in the area either on the north of the great wall or in high elevation and cold places. The moisture shall not be higher than 13% provided it is sold to the area on the south of the great wall (excluding in high elevation and cold</p>						

area).

#### 4.2.3 Wheat and Barley

**The quality of wheat seed and barley seed shall be in compliance with the requirements set forth in Table 3**

Table 3

per cent (%)

Name of crop	Category of seed		Genetic purity not lower than	Crop purity not lower than	Germination Not lower than	Moisture Not higher than
Wheat	Conventional seed	Basic seed	99.9	99.0	85	13.0
		Qualified seed	99.0			
Barley	Conventional seed	Basic seed	99.9	99.0	85	13.0
		Qualified seed	99.0			

#### 4.2.4 Sorghum

**The quality of sorghum seed shall meet the requirements as shown in Table 4.**

Table 4

per cent (%)

Name of crop	Category of seed		Genetic purity not lower than	Crop purity not lower than	Germination Not lower than	Moisture Not higher than
Sorghum	Conventional seed	Basic seed	99.9	98.0	75	13.0
		Qualified seed	98.0			
	Male sterile line, restorer line, and maintenance line	Basic seed	99.9	98.0	75	13.0
		Qualified seed	99.0			
	hybrid	Qualified seed	93.0	98.0	80	13.0
	<p>a. The moisture of the seed is allowed to be higher than 13%, but not exceed 16% provided it is produced in the area either on the north of the great wall or in high elevation and cold places. The moisture shall not be higher than 13% provided it is sold to the area on the south of the great wall (excluding in high elevation and cold area).</p>					

#### 4.2.5 Foxtail (*Setaria italica*) and Broom Corn Millet (*Panicum miliaceum*) .

The quality of the foxtail (*Setaria italica*) seed and broom corn millet (*Panicum miliaceum*) seed shall be in compliance with the requirements set forth in Table 5.

Table 5

per cent (%)

Name of crop	Category of seed		Genetic purity not lower than	Crop purity not lower than	Germination Not lower than	Moisture Not higher than
Foxtail millet and broom corn millet	Conventional seed	Basic seed	99.8	98.0	85	13.0
		Qualified seed	98.0	98.0	85	13.0

## 5 Testing Method

The crop purity analysis, the germination test, the measurement of moisture, the testing of the facility and the genetic purity shall be carried out in line with the stipulations set forth in GB/T 3543.

## 6 Rules for Testing

### 6.1 Sampling

The sampling and the determination of the seed lot shall be carried out in line with the stipulation set forth in GB/T 3543.

### 6.2 Rules for Evaluation

When the evaluation of the seed quality is made, the following rules shall be followed:

- a) Where the crop species, the name of the species, or the origin of the seed produced does not comply with what is labeled on the tag, the seed shall be evaluated as fake seed.
- b) Where any of the quality indices as the genetic purity, the crop purity, the rate of germination, and the moisture does not reach the labeled value on the seed labeling tag, the seed shall be evaluated as poor quality seed.
- c) Where any of the seed quality notation value on the seed labeling tag does not meet the value stipulated in the present Part (refer to 4.2), the seed shall be evaluated as poor quality seed.
- d) Where any quarantine or harmful organisms is contained, the seed shall be evaluated as sub-standard quality seed.

When the quality coincidence is examined in line with Rule 6.2b, the tolerance between the tested value and the labeling one as stipulated in GB/T 3543 is allowed to follow.

## Seed of Economic Crops Part 1: Fibre Species

(Version Submitted for Examination and Approval)

The National Standard of the People's Republic of China

GB 4407.1—200×

Substitute for GB 4407.1-1996

Issued on \_\_ (date) \_\_ ( month) \_\_\_\_ ( year), Effective on \_\_ (date) \_\_ ( month) \_\_\_\_ ( year)

Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, and the Standardization Administration of the People's Republic of China

GB 4407.1— 200X

## Preface

GB 4407 All of the technical components of Seed of Economic Crops are mandatory.

GB 4407 Seed of Economic Crops includes the following two parts:

— Part 1 Fiber Species, and

— Part 2 Oil Species.

This is Part 1 of GB 4407, which is formulated after modifications made on GB 4407.1—1996 in accordance with the related stipulations of the Seed Law of the People’s Republic of China and new development of the seed industry. And it substitutes for GB 4407.1—1996.

The major changes as compared with GB 4407.1—1996 are as follows:

- Its scope of application is more clearly defined;
- Definitions and terms are modified and revised;
- The quality indices for both cotton encrusted seed and genetically modified seed are defined respectively;
- The quality indices for cotton hybrid and its parents are newly added;
- The requirements for the crop purity of flax seed, for the germination of jute seed and kenaf seed are revised; and
- The rules for testing are amended.

The present part was prepared by the Ministry of Agriculture of the People’s Republic of China (MOA).

The present part falls within the scope of the National Technical Committees of Standardization for Crop Seed.

The Institutions participated in drafting the present part: The National Agro-Technical Extension and Service Center, the Supervision, Inspection and Testing Center of MOA for the Character and Quality of Cotton, and the Supervision, Inspection and Testing Center of MOA for Hemp Product.

The chief drafters of the present part: ZHI Juzhen, YANG Weihua, JIN Shiqiao, XU Hongxia, Yang Ruilin, ZHAO Jianzong, and FU Youlan.

A list of the previous versions of the Standard to be replaced by the present part is as follows:

- GB 4408-84? GB 4409-84; and
- GB 4407.1-1996.

GB 4407.1— 200X

Seed of Economic Crops

Part 1 Fiber Species

1 Scope

The present part of GB 4407 stipulates the quality requirements, the testing methods and the rules for testing with respect to the seed of fiber species as upland cotton( *Gossypium hirsutum*) , sea-land cotton (*Gossypium barbadense*), jute (*Corchorus capsularis*), jute (*Corchorus olitorius*), kenaf (*Hibiscus cannabinus*), and flax (*Linum usitatissimum*).

The present part applies to the seed of above-mentioned fiber species produced and sold within the territory of the People’s Republic of China.

## 2 Standardized Citations

The clauses of the following document will become the clauses of the present Part of GB 4407 by citation. Where the citation annotated with a date, all the modification made (excluding corrigendum) or any revised version after such citation will not apply to the present Part. However all parties whose agreement is made based on the present Part are encouraged to study whether or not to use the latest version of those citation. Where there is no any date annotated with the citation, the latest version of the citation shall apply to the present Part.

GB/T 3543( all components) The Rules for Testing of Crop Seed.

### 3 Terms and Definitions

The following terms and definitions shall apply to the present Part of GB 4407.

#### 3.1 Basic seed

Basic seed refers to the seed of the first to the third generations propagated by using breeder's seed and it is verified upon examination that the quality requirements stipulated are satisfied.

#### 3.2 Qualified seed

Qualified seed refers to the seed of the first to the third generations or hybrid seed propagated by using the conventional basic seed and it is verified upon examination that the quality requirements stipulated are satisfied.

#### 3.3 Undelinted Seed

Undelinted seed refers to the seed that its surface adheres to short fuzz after the seed cotton has been ginned.

#### 3.4 Delinted Seed

Delinted seed refers to that after the seed cotton is delinted.

#### 3.5 Encrusted Seed

Refers to the seed that its shape is similar to the original one but may contain some insecticide, bactericide, dyestuff or other additives.

### 4 Quality Requirements

#### 4.1 General provisions

Quality requirements are comprised of the quality index and the labeled quality value. The quality indices include the genetic purity, the crop purity (cleanliness), the rate of germination, the moisture; the labeled quality value shall be true and comply with the quality requirements set forth by the present Part (refers to 4.2).

#### 4.2 Quality Criteria

##### 4.2.1 Cotton

The quality of cotton seed shall meet the minimum requirements as shown in Table 1.

Table 1

per cent (%)						
Species	Type of Seed	Category of seed	G. purity not lower than	C. purity not lower than	Germination Not lower than	Moisture Not higher than
Conventional Cotton seed	Undelinted seed	Basic seed	98.0	97.0	70	12.0
		Qualified seed	95.0			
	Delinted seed	Basic seed	98.0	99.0	80	12.0
		Qualified seed	95.0			
	Encrusted seed	Basic seed	98.0	99.0	80	12.0
		Qualified seed	95.0			
Parent for cotton hybrid	Undelinted seed		99.0	97.0	70	12.0
	Delinted seed		99.0	99.0	80	12.0
	Encrusted seed		99.0	99.0	80	12.0

Cotton F1 hybrid	Undelinted seed	95.0	97.0	70	12.0
	Delinted seed	95.0	99.0	80	12.0
	Encrusted seed	95.0	99.0	80	12.0

#### 4.2.2 Jute, Kenaf and Flax

The quality of the seed of jute, kenaf and flax shall meet the minimum requirements as shown in Table 2.

Table 2

Species	Category of seed	per cent (%)			
		G. purity not lower than	C. purity not lower than	Germination Not lower than	Moisture Not higher than
<i>Jute(Corchorus capsularis)</i>	Basic seed	99.0	98.0	80	12.0
	Qualified seed	96.0			
<i>Jute(Corchorus olitorius)</i>	Basic seed	99.0	98.0	85	12.0
	Qualified seed	96.0			
<i>Kenaf(Hhibiscus cannabinus)</i>	Basic seed	99.0	98.0	75	12.0
	Qualified seed	97.0			
Flax ( <i>Linum usitatissimum</i> ).	Basic seed	99.0	98.0	85	12.0
	Qualified seed	97.0			

### 5 Testing Method

The crop purity analysis, the germination test, the measurement of moisture, the testing of the facility and the genetic purity shall be carried out in line with the stipulations set forth in GB/T 3543.

### 6 Rules for Testing

#### 6.1 Sampling

The sampling and the determination of the seed lot shall be carried out in line with the stipulation set forth in GB/T 3543.

#### 6.2 Rules for Evaluation

When the evaluation of the seed quality is made, the following rules shall be followed:

- Where the crop species, the name of the species, or the origin of the seed produced does not comply with what is labeled on the tag, the seed shall be evaluated as fake seed.
- Where any of the quality indices as the genetic purity, the crop purity, the rate of germination, and the moisture does not reach the labeled value on the seed labeling tag, the seed shall be evaluated as poor quality seed.
- Where any of the labeled seed quality value on the seed labeling tag does not meet the value stipulated in the present Part (refer to 4.2), the seed shall be evaluated as poor quality seed.
- Where any quarantine or harmful organisms are contained, the seed shall be evaluated as sub-standard quality seed.

When the quality coincidence is examined in line with Rule 6.2b, the tolerance between the tested value and the labeling one as stipulated in GB/T 3543 is allowed to follow.

### Seed of Economic Crops Part 2: Oil Species

(Version Submitted for Examination and Approval)

ICS The National Standard of the People's Republic of China

GB 4407.2—200×  
Substitute for GB 4407.2-1996

Issued on \_\_ (date) \_\_ ( month) \_\_\_\_ ( year), Effective on \_\_ (date) \_\_ ( month) \_\_\_\_ ( year)  
Issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, and the Standardization Administration of the People's Republic of China  
GB 4407.2— 200X

### **Preface**

GB 4407 All of the technical components of Seed of Economic Crops is mandatory.

GB 4407 Seed of Economic Crops includes the following two parts:

- Part 1 Fiber Species; and
- Part 2 Oil Species.

This is Part 2 of GB 4407, which is formulated after modifications made on GB 4407.2—1996 in accordance with the related stipulations of the Seed Law of the People's Republic of China and the development of seed industry. And the present Part substitutes for GB 4407.2—1996.

The major changes are as follows compared with GB 4407.2—1996:

- Definitions and terms are revised;
- Content concerning the quality grading of rape hybrid seed is cancelled;
- The quality requirements for sunflower hybrid and its parents are added;
- The requirements for the genetic purity of rape are modified;
- The requirements for the crop purity of rape hybrid, its parent, the conventional seed of sunflower and that of peanut are revised;
- The requirements for germination of the conventional seed of rape and sunflower are revised;
- The requirement for moisture of the conventional seed of sunflower is revised; and
- The rules for testing are amended.

The present part was prepared by the Ministry of Agriculture of the People's Republic of China (MOA). The present part falls within the scope of the National Technical Committees of Standardization for Crop Seed.

The Institutions participated in drafting the present part: The National Agro-Technical Extension and Service Center, Hubei Provincial Seed Station, Sichuan Provincial Seed Station, Anhui Provincial Seed Station, Jiangsu Provincial Seed Station, The Administration of Seed of Neimeng (inner Mongolia ) Autonomous Region, Liaoning Provincial Seed Administration Bureau, Henan Provincial Administration of Seed, Hebei Provincial Seed Station, Shaanxi Provincial Seed Station, Shandong Provincial Seed Station, Shanxi Provincial Seed Station, Hubei Seed Group and Shaanxi Qinfeng Seed Ltd. Corp.

The chief drafters of the present part: LIANG Zhijie, NIE Lianbing, XIAO Guofeng, ZHAN Genyin, JIN Shiqiao, JI Guangde, BAI Changqing, ZHANG Ying, MAO Congya, LIU Huakai, HE Fang, ZHANG Meiyin, LIU Yuxin, ZHAO Jianzong, FU Youlan, ZHU Fengyin, ZHANG Zhigang, YU Youhai, and YANG Jun.

A list of the previous versions of the Standard to be replaced by the present part is given as follows:

- GB 4407-84, GB 4409-84;
- GB 4407.2-1996.

GB 4407.2— 200X

Seed of Economic Crops  
Part 1 Oil Species

### 1 Scope

The present part of GB 4407 stipulates the requirements for quality, the testing methods and the rules for testing with respect to the seed of oil species as rape (*Brassica napus* L.), sunflower (*Helianthus annuus* L.), peanut (*Arachis hypogaea* L.) and sesame (*Sesamum indicum* L.).

The present part applies to the seed of above-mentioned oil species produced and sold within the territory of the People's Republic of China.

### 2 Standardized Citations

The clauses of the following document will become the clauses of the present Part of GB 4407 by citation. Where the citation annotated with a date, all the modification made (excluding corrigendum) or any revised version after such citation will not apply to the present Part. However all parties whose agreement is made based on the present Part are encouraged to study whether or not to use the latest version of the citation. Where there is no any date annotated with the citation, the latest version of the citation shall apply to the present Part.

GB/T 3543( all components) The Rules for Testing of Crop Seed.

### 3 Terms and Definitions

The following terms and definitions shall apply to the present Part of GB 4407.

#### 3.1 Basic seed

Basic seed refers to the seed of the first, the second and the third generations propagated by using breeder's seed and it is verified upon examination that the quality requirements stipulated are satisfied.

#### 3.2 Qualified seed

Qualified seed refers to the seed of the first, the second and the third generations or hybrid seed propagated by using the conventional basic seed and it is verified upon examination that the quality requirements stipulated are satisfied.

### 4 Quality Requirements

#### 4.1 General provisions

Quality requirements are comprised of quality index and quality notation value. The quality index include the genetic purity, the crop purity (cleanliness), the rate of germination, and the moisture; The labeled quality value shall be true and comply with the quality requirements set forth by the present Part (refer to 4.2).

#### 4.2 Quality Criteria

##### 4.2.1 Rape

The requirements of the quality of rape seed are shown in Table 1.

Table 1

per cent (%)					
Name of crop	Category of seed	G. purity not lower than	C. purity not lower than	Germination Not lower than	Moisture Not higher than

Conventional seed	Basic seed	99.0	98.0	85	9.0
	Qualified seed	95.0			
Parent	Basic seed	99.0	98.0	80	9.0
	Qualified seed	98.0			
Hybrid	Qualified seed	85.0	98.0	80	9.0

#### 4.2.2 Sunflower

The requirements of the quality for sunflower seed are shown in Table 2.

Table 2

per cent (%)

Name of crop	Category of seed	G. purity not lower than	C. purity not lower than	Germination Not lower than	Moisture Not higher than
Conventional seed	Basic seed	99.0	98.0	85	9.0
	Qualified seed	96.0			
Parent	Basic seed	99.0	98.0	90	9.0
	Qualified seed	98.0			
Hybrid	Qualified seed	96.0	98.0	90	9.0

#### 4.2.3 Peanut and Sesame

The requirements of the quality of Peanut and Sesame seed are shown in Table 3.

Table 3

per cent (%)

Name of crop	Category of seed	G. purity not lower than	C. purity not lower than	Germination Not lower than	Moisture Not higher than
Peanut	Basic seed	99.0	99.0	80	10.0
	Qualified seed	96.0			
Sesame	Basic seed	99.0	97.0	85	9.0
	Qualified seed	97.0			

## 5 Testing Method

The crop purity analysis, the germination test, the measurement of moisture, the testing of the facility and the genetic purity shall be carried out in line with the stipulations set forth in GB/T 3543.

## 6 Rules for Testing

### 6.1 Sampling

The sampling and the determination of seed lot shall be carried out in line with the stipulation set forth in GB/T 3543.

### 6.2 Rules for Evaluation

When the evaluation of the seed quality is made, the following rules shall be followed:

- Where the crop species, the name of the species, or the origin of the seed produced does not comply with what is labeled on the tag, the seed shall be evaluated as fake seed.
- Where any of the quality indices as the genetic purity, the crop purity, the rate of germination, and the moisture does not reach the labeled value on the seed labeling tag, the seed shall be evaluated as poor quality seed.

- c) Where any of the seed quality notation value on the seed labeling tag does not meet the value stipulated in the present Part (refer to 4.2), the seed shall be evaluated as poor quality seed.
- d) Where any quarantine or harmful organisms are contained, the seed shall be evaluated as sub-standard quality seed.

When the quality coincidence is examined in line with Rule 6.2b, the tolerance between the tested value and the labeling one as stipulated in GB/T 3543 is allowed to follow.

END OF TRANSLATION